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ABSTRACT

A study examined the effectiveness of the Reading Recovery program. Subjects were 60 third-grade students (100% minority students) from the midwest who came from low and middle-to-low socioeconomic status. Half of the students received Reading Recovery in first grade, half did not. Comparison of Iowa Tests of Basic Skills scores indicated no statistically significant differences between the two groups of students. Findings suggest that gains in reading made by the Reading Recovery students were maintained in the third grade. A list of recommendations includes the following: Reading Recovery should continue to instruct at-risk children; teachers of low-achieving students should raise their standards and level of expectation for all students; and teachers should encourage and praise all children in their effort to make reading an enjoyable and rewarding experience. Recommendations for further research include: a large sample/population; experimental study; and improved research which includes random sampling. (Contains 14 references and a table of data.) (RS)

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WHAT IS THE EFFECT OF READING RECOVERY ON THE READING ACHIEVEMENT OF AT-RISK STUDENTS?

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In an attempt to accelerate children and increase standardized test scores nationwide, inner-city public schools have sought for years, diverse methods of teaching, as well as programs targeted to enhance low achieving students.

Remedial programs seem to perpetuate public, as well as private institutions throughout this century. This phenomena of the 20th century has plagued the public school system. The questions is, at what level do we save the children from widening the gap of illiteracy and which method is the most appropriate? School districts, administrators, and program coordinators frequently ask this question.

Due to the importance of reading programs and its instructional models, an attempt has been made to research the effect of Reading Recovery on the reading achievement of at-risk students. This topic is of extreme importance since, each year, many children are at risk for literacy failure.

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The Reading Recovery Program has demonstrated in the midwest for the past five years to be a preeminent program that can work (Site Report, 1994). This early intervention program works in schools that commit totally to implementing the criteria as designed by Marie Clay. Most importantly, it serves the lowest 20% of children "at risk" in an academic setting. The

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program seems to provide children with the necessary reading strategies to keep pace with their peers and to continue to make progress in reading beyond the first grade.

Unfortunately, Reading Recovery is an expensive program with high pay-offs and only serves a percentage of first grade students, individual schools need to assess educational needs of their total primary reading program in order for the program to impact the children at risk. Due to the widespread and continued growth of first graders "at risk", researchers and educators continue to look for ways to narrow the gap between children "at risk" and their peers. Midwestern IOWA scores demonstrate that the gap of academic failure is reading. Additional research is needed to find methods for reaching the population at risk.

The aim of Reading Recovery was to record how teachers worked with children having difficulty learning to read, in a one-to-one teaching situation. The goal was to describe the range and variability of reading behaviors demonstrated by children and those prompted teaching responses made by the teachers.

The project began with a team of six people - teachers, supervising teachers, reading advisors and senior university students. They met every two weeks to observe each other teach and to discuss procedures. These procedures were observed using a one way screen. At the end of the lesson, the team discussed pupil and teacher responses. They were challenged and asked why they chose a technique, a particular book or a particular prompt. They were asked:

- What contributed to a teaching decision?
- How could they justify it?
- What other difficulties or achievements were the procedures related to?
- Why did children react in this or that way?
- Why did they not move the child more quickly?

(Clay 1985)

Several drafts of the teaching procedures were written, discussed and edited by the teachers and in 1978, the program was piloted in New Zealand. The result was the Reading Recovery Program which will be described in the following section.

Reading Recovery (RR), is an early intervention program that identifies first grade students "at risk" of reading failure and provides daily one-to-one intensive instruction to bring them up to the average level of their first grade peers. The goal of the program, developed by Marie Clay in New Zealand, is to produce a self-extending system of inner control, self-monitoring, and self-correcting behaviors in reading and writing. According to Clay, "Good readers have a coherent system, one that extends its own capacity" (Clay 1979). This could be the self-extending system that is used in the act of reading and expands as the reader uses reading strategies effectively and consistently in literacy. The program's developers suggest that "The program's effectiveness cannot be traced to one cause, but to several interrelated factors, including: 1) Special training for teachers; 2) A combination of interrelated reading and writing tasks; 3) Intensive daily instruction; 4) One-to-one instruction and; 5) Teacher/student interactions that support the development of effective cognitive strategies" (Pinnel, 1991).

The first step in identifying reading recovery students is to administer six diagnostic tests to all first graders. Following the six diagnostic tests and teachers' recommendations, first grade students from the lowest 20 percent of those tested are selected to receive one-to-one, 30-minute reading lessons each day. The 30 minute reading lessons are designed to plan and encourage a self-improving system and give the child ways to detect errors for himself and encourages attempts to correct errors, give the child cues to aid in self-correction, and allow him to make checks or repetitions so that he can confirm his first attempts. When the child works out words or tests for himself, this helps him to know how he did it (Clay, 1985). This is accomplished by reading many "little" books and constructing written stories. A typical tutoring session in Reading Recovery includes each of these activities, usually in the following order, as the format of the daily lesson:

- Re-reading of two or more familiar books - text
- Re-reading yesterday's new book and taking a running record - text
- Better identification (plastic letters on a magnetic board) - letters
- Writing a story (including hearing sounds in words) - text
- Cut up story to be re-arranged - text
- New book introduced - text
- New book attempted - text

(Clay, 1985)

Changes in students' behavior become apparent for most students in the early intervention program. "You will probably notice some things emerging that you did not think the child knew. New and useful behaviours appear as he begins to relate things one to another" (Clay, 1985).

Children have many strategies which they use to solve problems in their daily lives. Children are now beginning to apply these strategies to reading. The lesson sequence mentioned above is based on teacher/student interactions focused on reading for meaning and "teaching for strategies". The criteria used for selection implementation and discontinuation process apply to all schools in the program and are consistently monitored by the university-trained teacher-leaders (Site Report, 1992). This intervention program typically lasts from 12 to 16 weeks.

Once again, the goal of Reading Recovery is to produce student self-initiating, self-monitoring, and self-correcting behaviors in reading and writing. This continues until the student has developed effective strategies for independent reading and writing and he can make normal progress in the regular classroom without additional help. This now opens an available slot for students that are on a waiting list to participate in the Reading Recovery Program. Discontinued students are monitored through their primary years by the program teacher and they seem to demonstrate continued use of the self-extending system that enables them to be strategic, effective readers by solving reading difficulties through a series of questions and answers known as scaffolding.

The Midwestern Model consists of two program teachers working cooperatively in one first grade classroom. While one teacher provides individualized instruction for students, the other teacher works with the entire class using reading recovery support and strategies. The roles are reversed for the other half of the school day.

In an ever-changing society with diverse needs and changing technology, it is imperative to bring up to par, the American education system. Frequently, we hear, read and attempt to find new methodology to narrow the gap of low standardized test scores with grade equivalent test achievement.

Many programs have come and gone. The rationale for Reading Recovery is to help young children "at risk" for failure in reading. According to Pinnell, (1988), the goal of the program is to help children develop an independent, self-generating system for reading, the kind that good readers have, so that they can keep on learning to read better as they gain experience. This may curtail the cost of remedial programs in the future and bring children up to par with their classmates.

While this intervention program is not cheap, there are many elements that need to be addressed. The first step is to demonstrate that the program and procedures do work and that children make progress. If implemented, the results must be replicated to show that the reading procedures and the one-to-one model works in different school settings, as well as with diverse populations. Finding this to be true, the evidence must support the argument for the one-to-one teaching for which there is no precedent. Nevertheless, a direct link in program success is tied to the selection of capable and committed classroom teachers, consistent and sound theoretic staff development training, full implementation and administrative support at the school level, low absenteeism of staff and students and continuous uninterrupted lessons (Site Report, 1991-92).

Reading Recovery is an early intervention approach that targets the lowest-achieving 20% of a given first grade. This program evolved out of research conducted by Marie M. Clay (1985), a developmental child psychologist from New Zealand. Her research revealed the many internal processes of young readers. She then provided teachers with effective ways to observe children's reading and writing. Furthermore, Clay put together a program where in a half hour, over a period of 12 to 16 weeks, children can become independent readers and writers using strategies that are meaningful in text. The program was initially piloted in Ohio in 1985. A three year study revealed that over two-thirds of the children reached levels in reading and were successfully released (Pinnell, 1988). The same children were released and maintained good progress in reading. (Pinnell, 1988).

In traditional remedial programs, Carter (1984) warns of the potential danger of cumulative deficits: children who are behind their age peers learn less and less over the years while their more academically successful peers learn more and more, and so the gap widens between the two groups. On the other hand, Hiebert (1994) suggests that Reading Recovery tutored students did not retain self-extending strategies in other literacy tasks in subsequent grades. Self-extending strategies is a set of operations just adequate for reading a slightly more difficult text for the precise words and meanings of the author (Clay, 1985). Through them, the child comes to control his understanding and visual attention to print. Representing a retention rate of 42.5% for the Reading Recovery - tutoring group in a longitudinal sample over a one-year period. DeFord (1990) argued that full implementation where all schools within a district or state have a Reading Recovery program is needed for the impact of Reading Recovery to be realized.

Nevertheless, Spiegel (1995) revealed that non-Chapter 1 preschool intervention programs were confirming the long-term value of early intervention, including fewer retention's, fewer referrals to special education, lower drop-out rates, and higher likelihood of employment as young adults. Other first grade intervention programs such as Success for All, Early Intervention in Reading and First Steps also appeared to show promising results (Spiegel 1995). Pinnell (1988) supported the Reading Recovery program based on impressive research sponsored by Ohio State University, the U.S. National Diffusion Network site (Reading Recovery was originated by Marie M. Clay in New Zealand). In the first 6 years of the Ohio State project, successful discontinuation rates were 73% 82%, 86%, 83%, 87% and 88% (Ohio Reading Recovery Project, 1991., Pinnell 1988). The foregoing numbers represent well over three fourths of children identified as being in the lowest 20% of their first grade classroom.

Pinnell (1989) concluded that high discontinuation rates by the Ohio State Reading Recovery Project, "two-thirds or more children who receive a full program of Reading Recovery make accelerated progress and perform within the average range for their classes. Children reading their gains and continue to make progress at least two years after the intervention" (pp. 175-176). For the children that were serviced, but not accelerated, one must keep in mind that the students being served are the most in need, and to succeed with a large majority of these children is impressive (Spiegel, 1995).

There is growing evidence that the Reading Recovery program continues to demonstrate successful acceleration. In 1992-93, the Columbus Public School System conducted an evaluation of the Reading Recovery program. This program was serviced by 66 Reading

Recovery teachers tutoring 305 students. The results indicated that: (1) 149 pupils (92%) reached Scott Foresman level 8; (2) 91.9% of the pupils were not retained in grade one; (3) 355 different parents or guardians were involved in some way with the program; (4)34 (21.8%) of the evaluation sample students reached the average normal curve equivalent (NCE) for the district as a whole (Pollock, 1994).

In conclusion, the literature reviewed on Reading Recovery and traditional remedial programs seem to support the gains represented by the Reading Recovery Program of any given first grade. It is not a perfect program nor a program for all, but subsequent information on studies based on gains represented by quantified means of measurement such as standardized tests will continue to suggest or indicate the benefits of early intervention reading programs. What is the effect of Reading Recovery on the reading achievement of at-risk students?

First grade at-risk students taught reading using reading recovery will not obtain significantly higher reading achievement scores than students in the regular classrooms.

Procedures

Population: The population for this study will include 60 third grade students from the midwest. The socioeconomic status falls between the low and middle-to-low earned income. This group is comprised of 100% minority students.

Sample: From the 60 third grade students, school records demonstrated that 30 received the Reading Recovery Program while the other 30 did not receive the program. Thirty students were selected from each of the sub-populations.

Method of Data Collection: Each spring, the IOWA Tests of Basic Skills (ITBS) are administered to each student in the Midwestern Public elementary schools. Two samples were identified from the school records of those students who had received the Reading Recovery Program and those students who had not received the program. The reading results of the ITBS administered during the Spring of 1995 school year will be used in this study. The posttest only control group will be used.

Treatment of Data: The finding will be tabulated in terms of means and standard deviations. The t test will be employed at the .05 level of confidence to determine if there is any statistically significant difference between the mean scores.

Findings of the Study

The samples for the study included third grade students of the midwest. Each spring, students take the Iowa Test of Basic Skills (ITBS). From these third grade students, two groups were selected using stratified sampling. Subjects in one group participated in the Reading Recovery Program while subjects in the other group did not participate in the program. Results from the 1995 ITBS reading subtest(s) were used as a posttest. A t test ($p < .05$) was done on these two sets of scores to determine if there was a statistically significant change in achievement after active participation in the Reading Recovery Program. Table I summarizes the statistical analysis.

Table I
Reading Achievement

Test	Reading Recovery N=30	Control N=30	t
Posttest			
M	3.6	3.4	0.69*
SD	1.37	.84	

dF = 58 0.69 < 2.021

* Not significant at the .05 level

The examination of the 1995 mean posttest scores reveals after one year of exposure to the Reading Recovery Program, the Reading Recovery group means in reading is 3.6, while the control group means is 3.4, respectively. Thus, there is no statistically increase or decrease in reading. The t test scores for the 1995 results (0.69) shows no significant changes in reading for the Reading Recovery group. Nevertheless, the data leads to the acceptance of the null hypothesis: First grade "at-risk" students taught reading using Reading Recovery will not obtain significantly higher achievement scores than students in the regular classrooms.

The review of literature overwhelmingly tended to indicate that Reading Recovery for children "at-risk" in the first grade would obtain higher reading scores than those in the regular classroom. The research findings in this study appear to be consistent with the findings of the study by Hiebert (1994) in which he suggests that Reading Recovery tutored students did not retain self-extending strategies in other literacy tasks in subsequent grades. Representing a retention rate of 42.5% for the Reading Recovery-tutoring group in a longitudinal sample over a one-year period.

In this study, more follow-up research is needed as more students participate in the Reading Recovery program. The results were indeed surprising since a review of literature seemed to support the effectiveness of the program. This study might have resulted in different findings if the researcher had more control on the method of data collections and the population had been significantly larger, thereby, allowing more control of the extraneous variables.

Implications

The results of the study indicated that Reading Recovery did not significantly increase reading achievement scores. However, one must keep in mind that the students being serviced are the most in need and to bring students up to an average literacy level with that of their peers is indeed impressive. Reading Recovery will continue to operate in our schools to service students at-risk in an effort to narrow the gap of future academic failure in reading.

Recommendations

1. Reading Recovery should continue to instruct children that are on the verge of academic failure in first grade.
2. In-service and train primary grade teachers so that they can keep and empower children with strategy work.
3. Teachers of low-achieving students should raise their standards and level of expectation for all students.
4. Teachers should encourage and praise all children in their effort to make reading an enjoying and rewarding experience.
5. Teachers should provide reading materials that are interesting and rewarding in an effort to fall in love with literature.

Recommendations for Further Research:

a. Larger sample/population

b. Experimental study

c. Improved research which includes random sampling

d. Longitudinal study of four-five years

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